



BURR KING MFG. CO., INC

1220 Tamara Lane

Warsaw, MO 65355

www.burking.com

(660)438-8998 • 800-621-2748

Fax (660)438-8991

VIBRAKING MODEL 25, 45, AND 85 INSTRUCTION MANUAL



Model 85103 Shown

Model 45100 Shown

Model 25100 Shown

BURR KING VIBRAKING 25, 45, AND 85 VIBRATORY CHAMBERS



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June, 2007

Burr King Manufacturing Company, Inc. warrants the below product to be free in material and workmanship. The period of warranty is 1 year (90 days for vibratory bowls of 20 quart and lesser volume) from the date of purchase. No warranty is provided for products that have been modified, abused, handled carelessly, where repairs have been made or attempted by others, or for freight damage. No warranty is provided for three phase electric motors, controllers, etc. when the motors, controllers are not protected by magnetic starters that were supplied and installed by Burr King Manufacturing Company, Inc. No other warranty, written or verbal is authorized by Burr King Manufacturing Company, Inc.

During the warranty period Burr King Manufacturing Company, Inc (or its authorized suppliers or agents) will replace or repair the below product without charge if the product is found by Burr King Manufacturing Company, Inc. to be defective. To receive warranty services you must contact Burr King Manufacturing Company, Inc. and receive authorization fir warranty service. Unless otherwise authorized by Burr King Manufacturing Company, Inc. Products (see * below) must be returned to the factory to receive warranty service.

*Motors, speed controllers, and certain other accessories are warranted by their respective manufactures. To receive warranty service on these items you must contact a brand label service center that supports the product in need of service. Burr King Manufacturing Company; Inc. will assist you in locating a service center.

For the first thirty days after purchase, and when Burr King Manufacturing Company, Inc. authorizes warranty service, we will pay normal and necessary surface freight charges both ways (except for items in *). After thirty days the customer is responsible for all freight charges. Where possible Burr King Manufacturing Company, Inc. may elect to make on site service and/or repairs necessary to return the product to serviceable condition.

To assure prompt warranty service it is necessary that you complete and return the below warranty information to Burr King Manufacturing Company, Inc. please **FAX** or **MAIL** at your convenience.

Product model: _____ Serial number: _____
Date Purchased: _____ Purchased from: _____
Address: _____ City: _____ State/Prov: _____ Postal code _____

Your company name: _____
Address: _____ City: _____ State/Prov: _____ Postal code _____
Phone: _____ Fax: _____ Email: _____
Your name: _____ Title: _____

How did you learn about Burr King products?

Trade show ___ Web ___ Industrial Distributor ___ Advertisement ___ Other _____ Which one: _____

What is the intended use of this product? _____

Please indicate the general work types performed at your company, check all that apply:

Fabrication ___ Machining ___ Casting ___ Molding ___ Welding ___ Finishing ___ Assembly ___ Research ___ Other ___

Please indicate the primary product focus of your company; check all that apply.

Aircraft/Missile ___ Automotive ___ Contract machine ___ Contract Fabrication ___ Agricultural ___ Maintenance ___ Recreational ___
Job shop ___ Foundry ___ Construction ___ Arts ___ Orthopedic ___ Dental ___ Medical ___ Other _____

Please tell us what we can do to improve our products:

May we contact you? Yes ___ No ___

Thank you for purchasing Burr King products!

**REGISTER ONLINE @
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August 29, 2007

LETTER OF AUTHENTICITY

This letter is to certify that all Burr King Belt grinders, Disc grinders, Polishing machines Vibra King Chambers and Bowls are manufactured and assembled in the United States of America.

(Tariff number 847990 criterion A)

A handwritten signature in black ink, appearing to read "Don Mac Carthy".

Don Mac Carthy
President

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February 2005

OPERATOR, and OPERATING AREA SAFETY

Subject equipment includes Grinders, buffers, polishers, and other rotating equipment. Serious injury or death may occur if minimum safety precautions are not understood, and obeyed by operators and those other persons who may be in the immediate vicinity of the subject equipment. Persons who operate, or are in the immediate vicinity of the subject equipment must be properly trained in, and use, minimum safety precautions and procedures for such machinery.

Minimum safety requirements to operate, or work in the immediate vicinity subject equipment:

1. Read and understand all operating instructions, manuals, labels, and other information provided with the equipment.
2. Install the equipment according to manufacturer's instructions.
3. Securely bolt the equipment to a rigid, structurally sound mounting surface.
4. Use and wear proper eye and face protection.
5. Use and wear proper protection for the body, hands, fingers, feet, and legs.
6. Review and understand all machine guards, adjustments, and points of exposure to potential injury.
7. Do not remove, tamper with, or otherwise alter, equipment guards, and other safety features.
8. Insure the machine is adjusted, and remains adjusted according to manufacture's requirements.
9. Maintain the equipment in good operating condition.
10. Have another person who is knowledgeable in proper and safe operation of the subject equipment demonstrate proper and safe operation to all operators, and to those persons who might be in the immediate vicinity of the subject equipment.
11. Use work piece holding devices when ever possible that diminish the possibility that persons will come in contact with moving machine pieces, or spark/debris output from the machine.
12. Use spark and debris arresting apparatus. Such apparatus should be connected to the machine so as to contain dust and debris that is generated, and to suppress sparks thereby limiting human inhalation risk, and the risk of fire or explosion.
13. Use appropriate inhalation apparatus to protect person from ingestion and/or inhalation of sparks, debris, smoke, particulates, etc.
14. Avoid mixing different metals, alloys, and materials. To mix such materials might create a fire or explosion hazard.
15. Protect persons from work pieces, particulates, etc. that could be forcibly ejected from the machine. For example, a buffing wheel or grinding belt can "grab" a work piece while the work piece is being buffed, polished, ground, or otherwise conditioned, resulting in forcible ejection toward the operator or those in the vicinity of the machine. The use of leather aprons, gloves, and eye shields are examples of protective gear that may be effective. In general do not grind, buff, or otherwise engage the traveling belt, wheel, or disc surface with the work piece pointing into the direction from which the belt, wheel, or disc is traveling. However, if you choose to do so be aware the work piece may lodge in the traveling belt, wheel, or disc and be forcibly, and dangerously ejected.
16. Do not operate this machine if the gap (nip point) between a moving belt, wheel or disc and the work support surface exceeds 1/8 inch.
17. Do not operate this machine if the gap between the moving abrasive belt, disc or wheel and the adjacent face

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Continued from page 1

of the work rest (or table) will permit passage of the work piece through the gap (nip point). Note, however, that certain alloys such as titanium may create conditions where grinding debris can accumulate in a tight gap creating a potential fire hazard. **When in doubt consult with your safety officer.** Failure to observe this warning may result in the work piece or other item being caught in this gap, and/or being forcibly ejected. Failure to heed this warning may cause serious bodily harm to the operator and/or bystanders. **NEVER USE THIS EQUIPMENT IF YOU ARE NOT PROPERLY TRAINED IN ITS OPERATION and/or SAFE USE! IF IN DOUBT STOP and ASK FOR GUIDANCE!**

18. Never position the work rest table at an acute angle between the top of the work rest table and the moving belt or wheel. Doing so will create “nip point” that can cause serious injury should an operator body part become entangled (pulled into) the nip point created by this acute angle.

19. Do not operate the equipment, or allow others to operate the equipment without proper training in these and other rotating machinery safety requirements.

20. Do not perform maintenance on the equipment unless you are fully qualified to do so, and understand all necessary safety and operating requirements.

21. Do not leave the machine unattended while it is running.

22. Correct equipment or safety problems immediately. Do not operate the equipment when it requires maintenance, or correction.

23. Install and use high quality abrasive belts, wheels, discs, media, etc., as appropriate to your machine. Understand and follow the operating requirements provided by the manufacturer of these materials.

Rotational Speed Warning, Contact Wheels

Scope: Contact wheels manufactured by Burr King Manufacturing Company, Inc., which have rubber or urethane tires. Examples include but are not limited to stock codes 202, 302, 402, 502, 702, 802, 902, 1002, 1202 and variants. Variants have stock codes that begin with the base number; i.e. 802-S-55 is an 802 variant.

Users are warned not to exceed the below listed revolutions per minute (RPM) on the subject wheels. Failure to heed this warning may lead to tire de-bonding, fragmentation, or other mechanical failure. Such failures may cause serious personal injury to operators or bystanders, and/or cause property damage. All Burr King products are warranted for various time periods to be free of material and/or workmanship defects. Burr King Manufacturing Companies standard warranty policy is summarized as follows for contact wheels. 1 year from date of purchase if mounted on a Burr King machine purchased on the same date or 90 days if purchased as a spare or replacement part. Our warranty does not apply to wheels that are mounted on products not manufactured by Burr King Manufacturing Company, Inc. Users who mount Burr King manufactured contact wheels on product not manufactured by Burr King Manufacturing Company, Inc. do so at their own risk and assume all liability for having so mounted the contact wheel(s).

Remember good safety practice demands guarding to protect operators and bystanders from wheel failure and/or debris. Never use the subject contact wheels without proper guarding that meets commonly accepted safe practice. See OSHA, U/L, CSA, CE, ISO and other respected safety standards.

Stock code	
Contact Wheel	Maximum Safe RPM
202, 302	10000
402, 502, 702 802	4400
902, 1002	2200
1202	1600

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Occupational Noise Exposure

Burr King products produce levels of noise consistent with their intended purposes. The level and spectral content of noise produced is dependent on the product type, the degree that the product is maintained in proper operating condition, the abrasive/media and accessories used, the specific application, and the surrounding environment. Noise levels produced by various Burr King grinders and polishers, as measured at the Burr King factory, range from 80 to 93 decibels. Product operators and persons in the immediate product vicinity should be protected from excessive noise does levels as prescribed in OSHA regulation 29, piece 1910.95 titled "Occupational Noise Exposure".

ROTATING EQUIPMENT CAN BE DANGEROUS TO OPERATORS AND THOSE WHO MAY BE IN ITS IMMEDIATE OPERATING VICINITY. IT IS THE ABSOLUTE AND DIRECT RESPONSIBILITY OF PURCHASERS, MANAGERS, AND OPERATORS OF THIS EQUIPMENT TO UNDERSTAND AND OBEY THE FOREGOING MINIMUM OPERATING SAFETY REQUIREMENTS. IF YOU HAVE QUESTIONS OR SAFETY CONCERNS REGARDING OPERATING THE SUBJECT EQUIPMENT PLEASE CALL YOUR AUTHORIZED BURR KING DISTRIBUTOR, OR BURR KING MANUFACTURING AT 1-800-621-2748. YOUR SAFETY IS OUR FOREMOST CONCERN!

Burr King Manufacturing disclaims any and all responsibility for injuries, damage, loss of income, or other adverse consequence as might be incurred by purchasers, managers, and operators of this equipment.

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VibraKING model 25, 45, and 85 operating instructions

November 2006

General description

Models 25, 45, and 85 vibratory chambers use commonly available media to de-burr, polish, de-scale, or otherwise surface condition parts made from various materials. The media and parts achieve the proper processing motion by being subjected to thrust vectors that apply working force to the combination. A rotating mass that is critically located at a prescribed angle in relation to the tub center creates this vector force field. The vector field rotates around the tub axis such that at any point in the wave, the media and parts have properly aligned force vectors applied that sustain the vibratory wave. If plotted, this field of vectors is coaxial to the tub centerline giving rise to the term "Coaxial Drive". "Coaxial Drive" identifies Burr King Manufacturing's proprietary technology (patents pending).

The M25, M45, and M85 vibratory chambers are inherently well isolated from their environment because of Coaxial Drive technology. The effect of this isolation is an approximate 3 decibel sound reduction from units of similar size. One dB represents a 10 times reduction in sound energy and is the smallest change in sound that the human ear can detect. The decibel scale is logarithmic, thus -1 dB reduction represents a time's 10 reduction in energy, a -2 dB is a one hundred fold reduction, and -3 dB a one thousand fold reduction. Additionally, better than 85% of the applied mechanical energy applied to the vibratory process leaving little extraneous vibration to be absorbed by the floor on which the machine is mounted. The excellent use of the available energy also allows the vibratory chambers to operate very well with modestly sized electric motors.

The chambers have two descriptive volumes, "total volume" and "working volume". The total volume is that volume of liquid that would fill the tub to its brim. Working volume is approximately 80% of the total volume. Because there are many different part geometry's, weights, and materials, meaningful ways to specify working capacity are "working volume" and "part load". Working volume includes the volumes occupied by the media and the part's load. Maximum part load is that part load weight (irrespective of part volume) for which the vibratory chamber can sustain working action. Factors such as part geometry can reduce or even increase the maximum permissible part load. The final measure of optimum working capacity then becomes the combined part and media load for which the desired results occur within an acceptable time frame.

Initial machine setup and operation

CAUTION: This equipment is heavy. Observe good and safe practice when attempting to install, move, maintain, or otherwise work on it. Failure to observe this caution may create a safety hazard.

Burr King recommends that this equipment be secured to a structurally sound floor. Securing the machine to the floor will not diminish performance. For portable applications (no bolt down) the machine feet should be used to assure there is uniform four-point contact with the floor. Do not use the machine feet to elevate the machine as you may damage the machine feet. The feet have an adjustment range of about ½ inch. SEE INSTRUCTIONS BELOW.

Note the following precautions and warnings regarding “machine walking”. “Walking” is the actual movement of the machine, while operating, from its original point of placement. Please note that when used in the “no bolt down mode” it is vital that the machine be loaded with media, the drive be adjusted to the minimum necessary for a vigorous media roll, and the floor have a good gripping surface. Smooth tile, polished concrete and similar floor surfaces may cause the machine to walk. If you must operate your machine on a very smooth surface secure a section of good quality indoor/outdoor carpet with a rubber backing. Place your machine on the carpet with the rubber side of the carpet to the floor.

CAUTION: Machines not anchored to the floor may “walk” while operating. Walking may occur with a light total load, or if one or more of the machine feet are not in firm contact with the floor regardless of the load. Failure to properly install, adjust, maintain, and operate this machine may create a safety hazard.

Locate the machine conveniently. The floor should be firm and structurally sound; concrete is an ideal surface. Bolt the machine to the floor using quality 3/8-inch or larger diameter anchor bolts well secured into the floor. The anchor bolts may be installed in the machine leveler base holes after removing the machine levelers or, preferably drill four ½ inch diameter holes near the machine feet through which your anchor bolts will extend and retain the machine feet.

- Use high quality anchor bolts
- Place a rubber washer (at least 1/4 inch thick) between the nut-washer and the machine base surface. Use an elastic nut or other locking type nut arrangement but do not tighten the nuts down to the machine flange. **The vibratory machine must be free to rise and fall about 0.02 inches.**
- Tighten the nuts so as to lightly engage the rubber washer. The machine when mounted on its machine feet must be free to move vertically. If you over tighten the anchor bolt arrangement the natural motion of the machine will dislodge the bolts. **Note that the bolts are used as “bump-stops” and not as hard tie-downs.**

If you elect to retain portability (no bolt down), use the machine levelers to assure that the machine is level and that all four levelers are firmly in contact with the floor. After the levelers are properly adjusted secure them by tightening the lock nuts provided firmly to the machine base through which the leveler threaded shafts are engaged.

Walking is caused by the natural gyroscopic action created by the rotating mass of the drive system. Properly loaded and leveled the machine should not walk. Should walking occur and not be correctable by leveling or reducing the drive energy, bolt the machine to the floor as described above.

Floor texture, grease, oil, dust, and other materials that adversely effect the frictional coefficient of the machine feet may aggravate and/or promote “walking”.

Occupational Noise Exposure

Burr King vibratory tubs produce levels of noise consistent with their intended purposes. The level and spectral content of noise produced is dependent on the tub size, the degree that the bowl is maintained in proper operating condition, the abrasive/media and accessories used, the specific application, use or not of the optional lid, and the surrounding environment. Noise levels produced by various Burr King vibratory tubs, as measured at the Burr King factory, range from 81 to 93 decibels. Product operators and persons in the immediate product vicinity should be protected from excessive noise does levels as prescribed in OSHA regulation 29, part 1910.95 titled “Occupational Noise Exposure”.

Electrical requirements:

CAUTION: Only qualified Electricians should perform electrical installation, adjustments, maintenance, or modifications to this equipment. Failure to observe this caution may create a safety hazard.

CAUTION: Install this equipment in accordance with local electrical codes and regulations. Failure to do so may create a safety hazard.

<u>Equipment</u>	<u>Min. service size</u>	<u>Model</u>	
<u>Single phase units</u>			
3/4 hp, 120 VAC	15 ampere	M25	See the label on the machine to determine its electric service and horsepower
3/4 hp, 220 VAC	10 ampere	M25	
1.5 hp, 120 VAC	20 ampere	M45	
1.5 hp, 220 VAC	15 ampere	M45	
<u>Three phase units</u>			
3/4 hp, 208 to 260 VAC	10 ampere	M25	
3/4 hp, 416 to 480 VAC	10 ampere	M25	
1.5 hp, 208 to 260 VAC	15 ampere	M45	
1.5 hp, 416 to 480 VAC	10 ampere	M45	
3.0 hp, 208 to 230 VAC	20 amperes	M85	
3.0 hp, 416 to 480 VAC	15 ampere	M85	

Unless specified at purchase three phase machines are not equipped with a magnetic starter or power cord. Three phase machines should be connected to the mains supply via a magnetic starter. Failure to use a magnetic starter may create a /fire hazard, and/or void the motor warranty.

NOTE: All 3 phase units purchased with an integrated process timer (suffix T) come from the factory with an integrated magnetic starter. If you are unsure about the installation of your machine or its electrical configuration please consult the Burr King factory. The integrated 3 phase magnetic starter incorporates 120VAC-button control through the use of a step down transformer. The step down transformer also provides 120 VAC power for the integrated timer and the fluid pump.

A special note about motor rotation. Electric motors will operate CW or CCW depending on how the motor is wired (in the case of tree phase motors how the incoming power is phased). The machine drive shaft must rotate CCW when view from the discharge chute end of the machine. If the shaft rotates CW the media will not move properly and vibratory processing time will be significantly increased. If the shaft operates CW reverse the motor rotation. For three phase machines simply reverse any two incoming feed lines. For single-phase motors see the motor label plate which will usually direct the reversal of two wires with in the motor conduit box.

Loading media and parts into the machine

If you purchased a media starter kit from Burr King, install the media and compounds into the chamber using the prescribed quantities and mixtures. Otherwise follow the instructions provided. Do not exceed the media load prescribed for your machine.

<u>Machine</u>	<u>Ceramic media load</u>	<u>Part load</u>	<u>Max. total load</u>
M25	150 lbs.	100 lbs.	250 lbs.
M45	250 lbs.	225 lbs.	475 lbs.
M85	450 lbs.	450 lbs.	900 lbs.

Please note: Plastic media weights about 60% of an equivalent volume of ceramic media. Walnut shell or corncob weighs about 20% of an equivalent volume of ceramic media. Unless otherwise known by the

factory machines are adjusted at the factory for ceramic media weight. This means that if you use plastic, walnut, or cob media (i.e.) it may be necessary to reduce the drive to your machine prior to actual use.. See below

NOTE: Over loading the machine may significantly reduce its service life. If you use steel media note that steel media weights generally 200 to 350 pounds per cubic foot (Non steel media generally weights 20 to 125 pounds per cubic foot). To avoid possible machine damages do not add media and parts to the machine such that the total specified machine load is exceeded.

NOTE: Using too little media in your VibraKING will significantly reduce vibratory motion and adversely affect processing time and quality. You should have sufficient media in your VibraKING such that the media rises to less than 6 inches (3-4 inches is ideal) of the rear upper lip of the tub when the machine is operating. Add media as required to maintain this minimum quantity.

Place your parts into the tub. Note the above part loads. The part load prescribed is not a maximum but rather a nominal weight. The geometry, material, and weight of your parts will determine the part load you can achieve. The greater the total load, the harder the machine must work to sustain suitable wave and vibration energy delivery. Do not exceed the maximum total loads specified. To do so may shorten the life of your machine, and/or diminish its process capability.

Good media and part motion

Vigorous media and part movement evidence good motion. A rotating wave with the highest portion of the wave rising up the back wall of the machine and the front portion of the wave substantially below the rear portion should exist. With good action the parts circulate and rise to the rear of the tub, then cascade down the wave to the tub front. Should you not observe this quality of motion, check that the machine is loaded properly (see the previous table). To reduce the tendency for the machine to walk reduce the drive energy. You may **increase or decrease** the vibratory energy delivered to the tub by adjusting the rotating mass as follows:

CAUTION: Never apply electrical power to this equipment with the maintenance access panels removed, or if there is any indication of improper or unsafe operation. Failure to observe this caution may create a safety hazard.

- a. Disconnect main power.
- b. Remove the rear panel.
- c. Observe the rotating mass and the position of the counter weights in respect to each other.
- d. To increase delivered energy adjust the weights to greater agreement in alignment. Do this by loosening the weight set screws one at time and rotating the weight on the drive shaft. Tighten the set screws. Conversely, to reduce delivered energy reduce the alignment of the counter weights.

NOTE: The weights must be aligned in pairs. There must always be an even number of weights at any given angular displacement. Failure to observe this requirement will shorten the life of the machine and seriously reduce processing efficiency.

e. Do not adjust the counter weights such that excessive energy is delivered to the media/parts. If you observe that the media jumps vertically, or if you hear excessive noise generation, or if the media or parts are damaged during processing, or if the machine walks, you may need to reduce the delivered energy.

NOTE: The machines are adjusted at the factory for a ceramic media load with maximum specified part load. If lighter media (such as walnut shell) is used, or light part loads are instilled the drive energy should be reduced by adjusting the rotating counter weights as previously described. Doing thus will reduce the tendency of the machine to walk while retaining sufficient drive energy for good processing.

NOTE: Your machine may be operated with many media types. Your machine is provided with a plugging accessory that is to be installed when dry media is used. This accessory is a simple plumbing part that is to be threaded into the drain outlet of the chamber. Of course, when performing dry processing the fluid delivery system is turned OFF. If you desire to switch the machine back to wet processing, remove the plugging accessory, clean the dry media from the drain plumbing, and connect the wet drain plumbing.

NOTE: The drain (P/N 3599, 3599-1, or 3599-2) for your machine was installed at the factory, it can be removed and replaced. Drain 3599 has 0.201 diameter holes and is installed as the standard drain at the factory. Should the media you select require a finer drain select P/N 3599-1 with 0.125 diameter holes, or for a drain less prone to plugging select P/N 3599-2 with 0.257 diameter holes.

Operation of your VibraKING

The “on/off” controls for the main drive motor and the liquid pump are marked on the control panel. During processing you will normally apply both switches to the “on” position. Leaving the liquid pump in the “off” position inhibits the delivery of liquids and compounds.

VibraKING chambers are shipped from the factory with a re-circulating liquid supply system that includes a switch, pump, connecting hose, metering valve, and recovery sump bucket that serves to collect the fluid output from the chamber. If you purchased a FilterPAK 4000 with the machine the machine will be plumbed for this accessory.

In general, adjust the inlet fluid valve to “offline” about 60 degrees. Use enough fluid to maintain the media wet but not so much as to leave fluid standing in the machine, which will dampen operation. Of course use of certain dry application media types such as walnut shell require that the fluid be left in the OFF condition.

Avoid fire and explosion hazards. The use of fluids other than water and Burr King specified soaps in your VibraKING chamber (or an associated fluid re-circulating system) may create a fire/explosion hazard that could result in personal injury, or death. Use only clean water with recommended soaps.

Avoid eye damage, flesh burns, and/or poisoning. Many vibratory processing soaps, compounds, and media are acidic or caustic. Wear appropriate flesh and eye protection gear when using vibratory soaps and compounds, and when working around and with your VibraKING chamber. Do not ingest these materials. MSDS sheets are available for all soaps, compounds, and media sold by Burr King Manufacturing. Obtain, read, and apply the precautions specified in the MSDS sheets.

Precautions you must take with fluids and other materials

Only use fluid as recommended by Burr King Manufacturing. The liner used in the VibraKING (urethane) is very tough and resistant to abrasion. Certain chemicals may however, attack it. In example, mineral spirits may leach agents from the urethane and reduce its service life. If in doubt consult with Burr King or a chemist who is knowledgeable about urethane. Remember, never use flammable chemicals in your VibraKING chamber. Likewise, many chemicals can damage the pump and associated apparatus.

Additionally, there are many different chemicals in use as coolants, cutting fluids, and for other purposes commonly found in facilities such as machine shops. Burr King cannot guarantee the compatibility of the various soaps and fluids that we sell with the chemicals and fluids you may use. **You as the consumer must assure that the fluids and chemicals that you elect to use are compatible with each other and with other materials. It is possible that chemical reactions between fluids and/or materials that you use could be a treat to human health and safety; and/or create conditions that are deleterious to the VibraKING system, peripheral equipment, and/or your parts.**

There are many compounds that are available to use in vibratory machines depending on the materials, media, and results that you are using and desire. Fluids and compounds serve to improve finish, speed results, extend media life, and in some cases to retard oxide formation. The following is a partial list of guidelines:

1. When processing aluminum or other non-ferrous materials to a burr free state with matte finish select liquid soap such as **BKS60** and mix it with water at a concentration of 1 to 3 ounces per gallon of water. Adjust the metering valve to deliver a steady trickle of fluid to the chamber. A reasonable mechanical gauge is to set the metering valve so that it is approximately at a 45-degree angle to the centerline of the valve. For finer fluid control you must install a flow meter, most users find this unnecessary. If you elect to install a flow meter set the fluid flow between 1 and 8 gallons per hour as a starting point. To improve your parts surface condition post processing always rinse your parts in clean water shortly after removing them from the chamber, then dry them to minimize spotting. Remember that many metals will oxide rapidly when machining, etc. expose fresh metal (as is the case with vibratory processing). If this is a problem there are various chemicals that are available that you may use to dip your parts in post vibratory process to minimize oxide formation. Consult with your metals supplier, or Burr King Manufacturing.

2. When processing steel and other ferrous materials to a burr free state with a matte finish select a liquid soap that also contains a rust inhibitor such as **BKS60, AR60, OR RUSTX100** and mix it with water at a concentration of 1 to 3 ounces per gallon of water. Adjust the metering valve to deliver a steady trickle of fluid to the chamber. A reasonable mechanical gauge is to set the metering valve so that it is approximately at a 45-degree angle to the centerline of the valve. For finer fluid control you must install a flow meter, most users find this unnecessary. If you elect to install a flow meter set the fluid flow between 1 and 8 gallons per hour as a starting point. To improve your parts surface condition post processing always rinse your parts in clean water shortly after removing them from the chamber, then dry them to minimize rusting. Remember that ferrous metals will oxide rapidly when machining, etc. expose fresh metal (as is the case with vibratory processing). **BKS60, AR60, OR RUSTX100** will provide temporary retardation of rust formation. Depending on humidity, temperature, and other conditions the temporary rust inhibition will be from a few hours to several days. If your materials require longer protection, concentrated rust inhibitors are available that you may use to dip your parts in post vibratory process to inhibit rust formation for several days to several months. NOTE: RUST100 may be used as a vibratory soap in concentrations up to 8 ounces per gallon of water; used as such it provides superior rust retardation. For special problems with rust or other staining consult with your metals supplier, or Burr King Manufacturing.

3. When de-scaling steel (i.e.) use a de-scaling agent such as **BKD80**. This compound is used in place of other soaps and mixed in ratios from 3 to 6 ounces/gallon of water. Following processing neutralize the parts by dipping them in a rich solution of **BKS60, AR60, OR RUSTX100** soap (6-ounces/gallon water) and then dry the parts. **BKD80 is corrosive, wear appropriate protective gear for the eyes, hands, and other body tissues.**

3. Many materials may be brought to a fine, lustrous, low RMS finish by using non-abrasive ceramic polishing media together with a burnishing compound metered with the water. Follow the burnishing compound manufacturer's instructions as to concentration, etc.. Clean and dry your parts as described above immediately after processing.

4. Many materials may be polished to a high luster using special media such as walnut shell, corncob, etc. Typically, these types of media are used dry, without the use fluids. If you wish to use dry process media do not use the liquid delivery system. It will also be necessary to plug the outlet drain of your VibraKING chamber to prevent the media from escaping out the outlet. This can be done using common plumbing

devices available at ordinary hardware stores, or from Burr King Manufacturing. **Never operate the liquid pump dry. Doing so may damage the pump.**

Units equipped with process timers

Units equipped with process timers provide for selection and control of processing time without intervention by the operator except for selecting processing time and pressing the start button control. At conclusion of the selected time period the machine and the liquid pump will stop operation. The timers use high quality electronics that will handle the high surge currents required by induction motors when starting. For serial numbers at and beyond those shown below the process time, time units, and time scale can be selected or be reset anytime that the unit is not operating. Proper operation of the timer requires that the "MODE" control be in the PO position. All functions of the timer are selectable on the outside of the timer module by using a small philips screwdriver to rotate the selector. The face of the timer control device will show the selected parameters as the screwdriver is rotated.

<u>Model</u>	<u>Serial number</u>
85	8536
45	4729
25	2670

Units with prior serial numbers require the complete removal of electrical power in order to reset the timer. Also prior serial number units require that the "MODE" selection be SF

Tips for optimizing your vibratory process results

It is impossible to anticipate all possible combinations of materials, shapes, media, and compounds that customers may use in this equipment. It is therefore, not possible to provide specific directions for media selection, compounds, process times, etc. There are, however, general guidelines that will help to target the optimum process. These include:

1. Select your media and compounds after consulting with the Burr King factory, a qualified media supply house, or your Burr King distributor. See the previous section on using fluids and compounds.
2. Clean your equipment regularly. This will help in keeping your processed parts free of stains, dust, etc.
3. Use fresh fluids and change them often.
4. Clean and rinse parts quickly after processing. Non ferrous parts may stain if not cleaned and dried properly. Ferrous parts may rust. There are compound additives that will help in removing and/or preventing part staining.
5. Media wears out in time. The longer media is used the less is its cutting power. This "wearing out" is akin to the exhaustion of life encountered with an abrasive belt, or wheel. Softer materials such as aluminum tend to clog the media, harder materials tend to wear the surface of the media. The use of fluids will help to optimize your results. Burr King recommends that you establish a regular schedule for changing and discarding your media. You will gain knowledge regarding process times, media life, etc.. Keeping records of your process variables will help you optimize your process.
6. Vibratory processing creates sludge in the liquid supply system. This sludge is a natural result of the mechanical abrasion that occurs. The sludge may contain abrasive residue, part material residue, soap, or other materials that you may introduce into the process. This sludge should be processed and discarded in a manner that is acceptable to your local, and/or state environmental protection agencies. Since Burr King can not know what materials a customer may introduce into the process, it cannot provide specific instructions regarding this topic. Burr King can provide MSD sheets for all media and chemical products that it sells.
7. Use a filtration system such as the Burr King FilterPAK 4000 or FilterPAK 8000 to keep your fluids cleaner too greatly minimize difficulty in sludge disposal. The FilterPAK 4000 incorporates inexpensive, disposable filter bags that trap sludge for ready disposal. Of course the fluid that is returned to your vibratory

chamber is much cleaner. Cleaner fluids mean cleaner parts, better finishes, faster processing time, and naturally less mess in your shop, and responsible waste management. Many users who process aluminum, steel, iron, copper, and other non toxic metals find that the FilterPAK 4000 filter bags may be sent to public land fills as normal refuse. **Always consult with your local authorities if you are in doubt about proper waste disposal.**

Discharging media/parts

The discharge chute is located on the lower portion of the machine left side. The chute plug may be removed by pulling it free of the tub. With the machine operating, the media and parts (if smaller than the tube diameter) will cascade from the tube to a container of your choice. **NOTE: When the machine approaches empty it may begin to walk while vibrating. Should this occur, switch main power switch to “off” and remove the balance of the media/parts manually.**

Controlling rancid fluids

Vibratory fluids will accumulate organic contaminants from operators, parts, etc. The fluids may become rancid, producing a foul smell. You can easily control rancidity by keeping your chamber, filter system, etc. clean. In the event of rancidity add a small amount of “Lysol” disinfectant to the media while the machine is operating. Ordinarily, a couple of tablespoons full will work very well and not adversely effect your vibratory processing. In fact, many metals react favorably with “Lysol” by finishing to a brighter level.

Maintenance of your Burr King vibratory chamber

Maintenance consists of cleaning the unit, assuring mechanical fasteners are secure, assuring the drive belt is properly tensioned, and occasionally lubricating the drive shaft bearings. **NOTE: Instructions for maintenance are printed on the maintenance label affixed to the front access panel of the machine.**

Special note about the motor mount and drive belt(s)

Do not over tighten the drive belt. The machine will run better with a drive belt that in another application would appear to be running too loose. **Over tightening the drive belt will result in premature motor failure.**

Warranty service and replacement parts

Should you require warranty service, or replacement parts, please contact your Burr King distributor. The Burr King factory may be reached at 1-660-438-8998. The motor manufacturer warrants the main drive electric motor; to obtain motor warranty service contact the motor manufacturer’s service center in your area. **NOTE: when inquiring about warranty service or replacement parts please be prepared to provide the actual machine part number, and its serial number.**

Modifications to your vibratory chamber

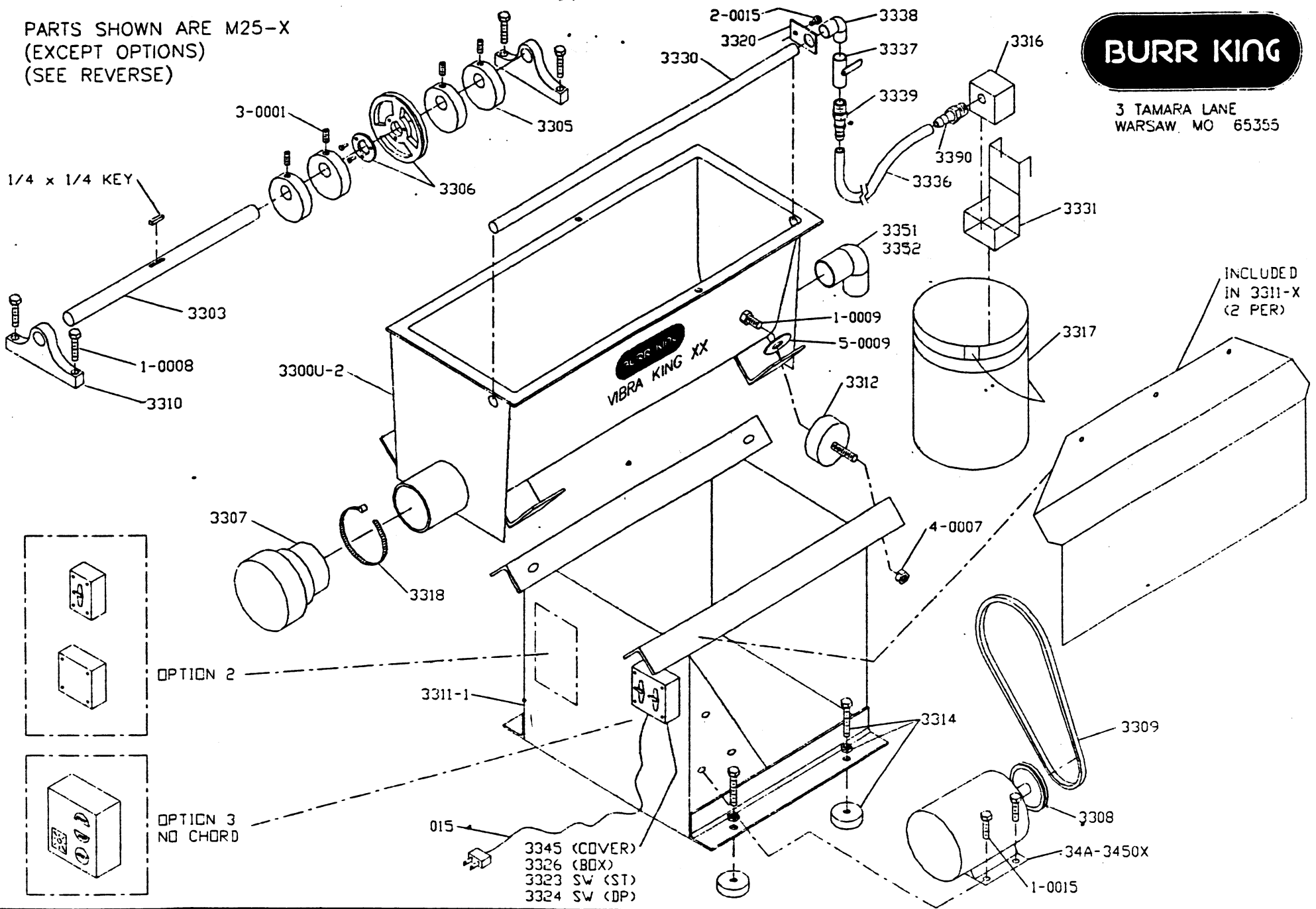
CAUTION: Modification of the machine from its as shipped condition from the factory may create a safety hazard, and may void the factory warranty. If you have any questions in this regard please consult the factory before making any modifications.

M25, M45, M85 PARTS LIST

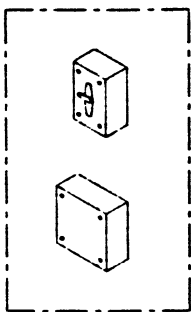
PARTS SHOWN ARE M25-X
(EXCEPT OPTIONS)
(SEE REVERSE)



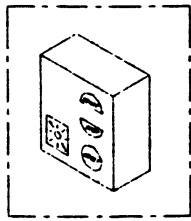
3 TAMARA LANE
WARSAW, MO 65355



INCLUDED
IN 3311-X
(2 PER)



OPTION 2



OPTION 3
NO CHORD

- 3345 (COVER)
- 3326 (BOX)
- 3323 SW (ST)
- 3324 SW (DP)

ELECTRICAL PARTS

P/N	DESCRIPTION	M25								M45								M85				
		1	2	3	4	1T	2T	3T	4T	1	2	3	4	1T	2T	3T	4T	3	4	3T	4T	
3316	PUMP, LIQUID, 120VAC	1	-	1	1	1	1	1	1	1	-	1	1	1	1	1	1	1	1	1	1	1
3316-1	PUMP, LIQUID, 220VAC	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-
015	CORD, PWR, 120VAC	1	-	1	1	1	-	-	-	1	-	1	1	1	-	-	-	-	-	-	-	-
017	CORD, PWR, 220VAC	-	1	-	-	-	1	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-
3326	BOX, DUPLEX, DEEP, WP	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-
3345	COVER, RAIN, SW, DUPLEX	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-
3323	SWITCH, SPST	1	-	1	1	-	-	-	-	1	-	1	1	-	-	-	-	-	1	1	-	-
3324	SWITCH, DPST	1	2	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-
34A-3450X	MOTOR, 110/220, 1P, 3/4HP	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
150A-3450X	MOTOR, 110/220, 1P, 1 1/2HP	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-
34B-3450	MOTOR, 220/440, 3P, 3/4HP	-	-	1	1	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-
150B-3450	MOTOR, 220/440, 3P, 1 1/2HP	-	-	-	-	-	-	-	-	-	-	1	1	-	-	1	1	-	-	-	-	-
300B-3450X	MOTOR, 220/440, 3P, 3HP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	1	1
3321	TIMER, 120VAC, PUMP, 3/4HP	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-
3322	TIMER, 220VAC, PUMP, 1.5HP	-	-	-	-	-	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
3328	TIMER, 208, 220, 240VAC, 3P, 1-3HP	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	-
3328-2	TIMER, 208, 220, 240VAC, 3P, 3/4HP	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3328-1	TIMER, 416, 440, 460VAC, SP, 1-3HP	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	1
3328-3	TIMER, 416, 440, 460VAC, SP, 3/4HP	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3325	COVER, RAIN, SW, SINGLE	-	-	-	-	1	1	-	-	-	-	1	1	-	-	-	-	-	1	1	-	-
3354	BOX, SINGLE, DEEP, WP	-	-	1	1	-	-	-	-	-	-	1	1	-	-	-	-	-	1	1	-	-

MECHANICAL PARTS

P/N	DESCRIPTION	M25	M45	M85
3303	SHAFT, DRIVE	1	1	-
3303-1	SHAFT, DRIVE	-	-	1
3305	WEIGHT, THROW	4	6	-
3305-1	WEIGHT, THROW	-	-	6
3306	PULLEY, 5.75	1	1	-
3342	PULLEY, 5.75, 2X	-	-	1
3307	PLUG, DISCHARGE CHUTE	1	1	1
3308	PULLEY, 3.35	1	1	-
3343	PULLEY, 3.35, 2X	-	-	1
3309	BELT, V, DRIVE	1	1	2
3310	BEARING, PILLOW	2	2	4
3311	MAIN FRAME	-	1	-
3311-1	MAIN FRAME	1	-	-
3311-2	MAIN FRAME	-	-	1
3312	ISOLATOR	4	4	8
3314	FOOT, MACHINE	4	4	6
3315	PIPE, LIQUID FEED	-	1	-
3330	PIPE, LIQUID FEED	1	-	-
3349	PIPE, LIQUID FEED	-	-	1
3317	PAIL, PVC, 5GAL	1	1	1
3318	CLAMP, DISCHARGE	1	1	1
3320	CLIP, PIPE RETAINER	1	1	-
3320-1	CLIP, PIPE RETAINER	-	-	1
1-0008	BOLT, 1/2-20 x 1 1/2 IN	4	4	8

P/N	DESCRIPTION	M25	M45	M85
3331	HANGER, PUMP	1	1	1
3336	HOSE, LIQUID DELIVERY	1	1	1
3337	VALUE, METERING	1	1	1
3339	BARB, HOSE	1	1	1
3340	BARB, HOSE	1	1	1
3338	ELBOW, PIPE, 1/4	1	1	-
3338-1	ELBOW, PIPE, 3/8	-	-	1
3351	ELBOW, 4S, PVC, 2IN	-	1	1
2-0015	SCREW, BH, 5/16-24	2	2	2
3352	ADAPTER, NPT, PVC, 2IN	-	1	1
1-0009	BOLT, 3/8-16 x 5/8	4	4	-
1-0005	BOLT, 3/8-16 x 3/4	-	-	8
1-0015	BOLT, 5/16-18 x 1	4	4	4
2-0014	SCREW, ALLEN, 1/4-20 x 3/8	8	8	8
4-0007	NUT, ELASTIC, 3/8-16 x 1/2	4	4	8
3-0001	SCREW, SET, 3/8-16 x 1/2	4	6	6
3300U	TUB, LINED	-	1	-
3300U-2	TUB, LINED	1	-	1
3300U-3	TUB, LINED	-	-	1
5-0009	WASHER, 3/8 LOCK	4	4	8
3353	ADAPTER, 1/4 TO 3/8 BUSH	-	-	1
5-0007	WASHER, 1/2, LOCK	4	4	8

MECHANICAL OPTIONS

P/N	DESCRIPTION	M25	M45	M85
3333	LTD, SOUND DAMPING	-	1	-
3333-1	LTD, SOUND DAMPING	-	-	1
3333-2	LTD, SOUND DAMPING	-	-	1



BURR KING®

PLASTIC & SYNTHETIC MEDIA

PLASTIC MEDIA

SYNTHETIC MEDIA

Formula	Color	Purpose	Formula	Color	Purpose
V	Light Green	Light Deburr Preplate finish	SP	Tan	Polish Edgebreak
X	Dark Green	General Deburr Preplate Finish	SV	Light Green	Light Deburr Preplate Finish
XV	Blue	Fast Deburr Preplate Finish	SX	Pink	General Deburr Preplate Finish
Z1	Tan	Fast Deburr Preplate Finish	SJ	Tangerine	Fast Deburr Preplate Finish

STANDARD SHAPES & SIZES

● No Minimum Required
 Δ Minimum 500 lb. Order

		Formulations								
		PLASTIC				SYNTHETIC				
	Cones		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	Δ	●	●	●	Δ	●	●	●
	3/8"	3/8"	●	●	Δ	●	Δ	●	●	●
	1/2"	9/16"	●	●	Δ	●	Δ	●	●	●
	5/8"	7/8"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	●
	3/4"	3/4"	●	●	●	●	Δ	●	●	●
	1"	1"	Δ	●	Δ	Δ	Δ	Δ	Δ	Δ
	1 1/4"	1 1/4"	●	●	Δ	●	Δ	●	Δ	Δ
	1 1/2"	1 1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
	1 3/4"	1 3/4"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
2 1/2"	3"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	Cylindrical Wedges		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
	5/8"	1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
	3/4"	3/4"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
	1 1/8"	1"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ
1 1/2"	1 1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	●	
	Tetrahedrons		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	Δ	●	●	Δ	Δ	Δ	Δ	Δ
	3/4"	3/4"	Δ	●	●	Δ	Δ	Δ	Δ	●
	1 1/8"	1 1/8"	Δ	●	Δ	Δ	Δ	●	Δ	Δ
	1 1/2"	1 1/2"	Δ	●	Δ	Δ	Δ	Δ	Δ	Δ
	Pyramids		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	C	●	●	Δ	●	Δ	Δ	Δ
	1/4"	1/4"	1/4"	●	●	Δ	●	Δ	Δ	Δ
	3/8"	3/8"	3/8"	●	●	Δ	●	Δ	Δ	Δ
	3/8"	5/8"	3/8"	Δ	●	Δ	Δ	Δ	●	Δ
	1 5/8"	1"	1"	Δ	●	Δ	●	Δ	Δ	●
2"	1 1/2"	1"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	
	Triangles		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	C	Δ	Δ	Δ	Δ	Δ	Δ	Δ
	5/8"	3/8"	1/2"	●	●	Δ	Δ	Δ	●	Δ
1 1/4"	7/8"	5/8"								
	TriStars		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	Δ	●	Δ	Δ	Δ	Δ	Δ	Δ
1 3/4"	3/4"									
2"	1"									
	Wedges		V	X	XV	Z1	SP	SV	SX	SJ
	A	B	Δ	●	Δ	●	Δ	Δ	Δ	Δ
	1"	3/4"	Δ	●	Δ	●	Δ	Δ	Δ	●
	1 1/2"	1"	Δ	●	Δ	Δ	Δ	Δ	Δ	●
	2"	1 1/4"	Δ	●	Δ	Δ	Δ	Δ	Δ	●
2 1/2"	1 1/2"	Δ	Δ	Δ	Δ	Δ	Δ	Δ	Δ	

- * Plastic media with low foam additive.
- * Synthetic media is UF resin and sand mixture.
- * Plastic media is polyester and sand mixture.
- * Packaged in 50LB boxes.

FORMULATIONS

POLISH

Made of high alumina and contains no abrasives. Use with burnishing compounds to burnish metals or with loose abrasives or compounds for deburring. These pins produce a high luster finish and are suitable for use in all types of finishing equipment.

	FORMULA	COLOR	PURPOSE	MEDIA WEAR	SURFACE FINISH	CU. F.T. BULK RATE
POLISH Made of high alumina and contains no abrasives. Use with burnishing compounds to burnish metals or with loose abrasives or compounds for deburring. These pins produce a high luster finish and are suitable for use in all types of finishing equipment.	Polish	White	Polish/ Light deburr	Excellent	Bright	115-120
FAST CUT Made for fast cutting and deburring applications in all types of finishing equipment	Fast Cut	Grey	Fast Cut	Good	Good	100-110

FAST CUT

Made for fast cutting and deburring applications in all types of finishing equipment

SHAPES/SIZES

STOCK * NON STOCK **


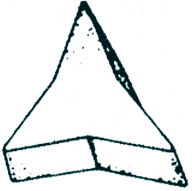
SHAPES	STANDARD SIZES (IN MM)		SHAPES	STANDARD SIZES (IN MM)	
STRAIGHT CUT POLISHING CYLINDERS	DIAMETER	LENGTH	FAST CUT CYLINDERS	DIAMETER	LENGTH
	1.3 **	3.0		1.5 *	5.0
	1.7 **	5.0		2.0 **	4.0
	2.5 *	8.0		2.0 **	7.0
	3.0 *	10		2.5 *	8.0
	4.5 *	14		3.0 **	6.0
	5.5 **	17		4.5 **	8.0
7.0 **	23				
POLISHING TRIANGLE	DIAMETER	LENGTH	FAST CUTTING TRIANGLE	DIAMETER	LENGTH
	2.0 *	2.0		2.0 *	2.0
	3.0 **	3.0		3.0 *	3.0
	4.0 *	4.0		3.0 **	6.0
	6.0 *	6.0		4.0 **	8.0
			6.0 *	6.0	
POLISHING SPHERES	DIAMETER		FAST CUTTING SPHERES	DIAMETER	
	2.0 *			2.0 **	
	3.0 *			3.0 *	
	4.0 *			4.0 *	
	5.0 **			5.0 **	
	6.0 *			6.0 **	
	8.0 *			9.0 *	
10.0 **		10.0 **			

NOTE: The polishing pins and polishing spheres are stocked in both OH, and CA warehouses. Delivery on the other products listed - stock to eight weeks. Other sizes and non-standard items are available on special order, call for pricing and delivery. No stock 800lbs. minimum.

BURR KING MFG., INC.
 1220 TAMARA LANE
 WARSAW, MO 65355
 (660) 438-8998 (800) 621-2748
 FAX:(660) 438-8991

PREFORMED TUMBLING AND VIBRATORY CERAMIC ABRASIVES

NOTE: **Green** and **Grey** fields are in stock.
 Non stock items 500lb. minimum

SIZE	STOCK			SHAPE	SIZE	STOCK			SHAPE
	P-20	P-40	P-60			P-20	P-40	P-60	
2 x 7/8				ANGLE CUT TRIANGLE  ACT	1-7/8 x 5/8				ANGLE CUT TRISTAR  AC3S
2 x 11/16					1-3/8 x 7/16				
1-7/8 x 7/8					1-3/8 x 1/2				
1-7/8 x 5/8					1-1/8 x 1				
1-1/2 x 1-1/2					1-1/8 x 7/8				
1-1/2 x 1/2					1-1/8 x 3/8				
1-3/8 x 5/8					1-1/8 x 5/16				
1-3/8 x 1/2					7/8 x 3/8				
1-3/8 x 7/16					7/8 x 7/8				
1-1/8 x 1-1/8					7/8 x 5/16				
1-1/8 x 1					5/8 x 3/4				
1-1/8 x 7/8					5/8 x 5/16				
1-1/8 x 5/8					5/8 x 1/4				
1-1/8 x 3/8					3/8 x 3/16				
7/8 x 7/8					1-1/8 x 1-3/4				
7/8 x 3/8					7/8 x 1-3/4				
7/8 x 5/16					7/8 x 1-1/2				
3/4 x 3/4					3/4 x 1-1/2				
5/8 x 5/8					5/8 x 1-1/2				
5/8 x 1/2 x 5/16					5/8 x 1-1/8				
5/8 x 1/4				1/2 x 7/8					
5/8 x 3/8				7/16 x 7/8					
3/8 x 3/8				3/8 x 5/8					
3/8 x 1/4				5/16 x 5/8					
3/8 x 5/16				1/4 x 5/8					
3/8 x 3/16				3/16 x 5/8					
1/4 x 1/4				3/16 x 3/8					
1/4 x 5/16				5/32 x 5/16					
1/4 x 3/16				ACC ELLIPSE 22 Degrees					
7/8 x 1/4				3/8 x 5/8 x 5/8					
7/8 x 5/8				3/8 x 5/8 x 7/8					
1/4 x 3/16				1 x 3/8 x 1					
1/4 x 1/4				45 & 60 Degrees					
3/8 x 3/8				3/8 x 5/8					
7/16 x 7/16				5/8 x 1-1/8					
5/8 x 5/8				1/4 x 9/16					
3/4 x 3/4									
1 x 1									
1-1/2 x 1-1/2									
2 x 2									

Compositions, General Info., Anti rust and soap solution on back.

PREFORMED TUMBLING & VIBRATORY CERAMIC ABRASIVES

COMPOSITIONS

P-60 = Light cut, superior finish, leaves clean surface, good for aluminum parts. (78-80lbs.)

P-40 = Good cut and wear life, excellent finish, ideal for general purpose use, economical
(89 to 90 lbs. per cubic foot)

P-20 = Fastest cut, for heavy deburring, matte finish. (85 to 90 lbs. per cubic foot)

GENERAL INFORMATION

Successful parts processing depends not only on the capability of equipment used, but also on the type, shape and size of the media used.

Users whose work requires preforms will find that an understanding of the types available will influence the quality of their work as well as time cycles and operating procedure.

We are totally capable of rendering assistance in your selection of specific media and equipment for your particular problem in deburring and finishing.

We base our recommendations and technical information on testing we consider reliable, but they are based on information we assume is correct from our dealers, agents and customers.

SOAP SOLUTIONS

AR-60 - Anti Rust solution is the neutral liquid used for prevention of oxidation and rust formation. Excellent for rinse after tumbling to prevent spotting and streaking of aluminum and magnesium. Can be mixed hot or cold. When used as a dip will impart a dry, oily microscopic film which does not require removal for subsequent operations. Anti rust is mildly sudsy.

BKS-60 soap solution has a slightly alkaline liquid that is especially designed for vibratory equipment as it is a low sudser. Contains some petroleum additives.